

Handy New Kinks for Motorists

If You're Stalled in the Rain

A Fire Extinguisher Will Help You "Put Out" the Dampness—Ideas and Tools Others Find Helpful

OFTEN when a car has stood for hours in the rain, wet high tension wiring, spark plugs, and distributor head sometimes result in a dead ignition system. At the right is shown an emergency method of getting started. Take your fire extinguisher and squirt some of the solution it contains on the distributor head, wires, and spark plugs. Do not use too much. The extinguisher liquid is carbon tetrachloride. It will carry away the moisture and then itself disappear by evaporation.

Finding Loose Bearings

IF MYSTERIOUS knocks and noises in the motor make you doubtful about the condition of your connecting rod bearings, the next time you take off the head to scrape the carbon and grind the valves press a plumber's force pump against the head of a piston, and attempt to move the piston up and down, as shown in

Fig. 1. Testing for loose wrist pin or connecting rod bearing with a plumber's force pump.

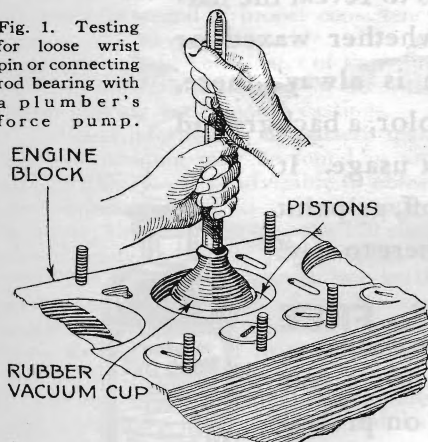


Fig. 1. Any appreciable motion indicates that either the wrist pin or connecting rod bearing is loose, and perhaps both.

Light for the Gas Gage

THE experience of getting stuck on the road at night with an empty gas tank often is due to inability to read the gage on the tank owing to lack of light. A remedy for this trouble is shown in Fig. 2. If there is no spare tire or other intervening object between the tail-light and the gage, simply drill a small hole in the side of the tail-light, so that a beam will be projected directly on the dial. If you are careful to get the hole in exactly the right place, it can be very small. Try a



Fire extinguisher fluid dries out rain-soaked ignition system and helps start the motor.

RUSSELL MARTIN, of Turners Falls, Mass., wins this month's \$10 prize for his suggestion for illuminating the gasoline gage, shown in Fig. 2. Each month **POPULAR SCIENCE MONTHLY** awards \$10, in addition to regular space rates, for the best idea sent in for motorists. Other contributions used are paid for at the usual rates.

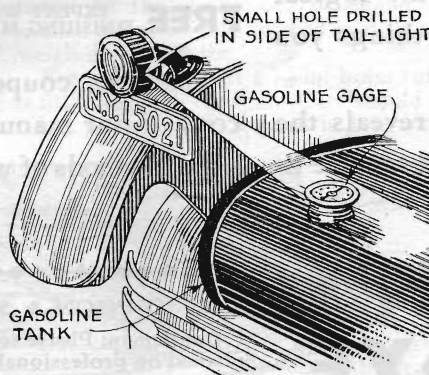


Fig. 2. A small hole drilled in side of tail-light illuminates gas gage on tank for night reading.

small hole to start with and if the beam of light doesn't hit the gage, you can enlarge the hole with a small rat-tail file. If the tail-light is shielded from the gage, so a direct beam of light is impossible, use a small mirror to reflect the beam.

Simple Pipe Flaring Tool

CERTAIN types of gasoline pipe unions require that the end of the pipe be belled out into a smooth flare. Flaring the pipe can be done easily by the tool shown in Fig. 3. Take a finishing nail and bend a kink in it as illustrated. Cut off the head of the nail so it can be held in the chuck of a hand drill. The end of the pipe should be clamped in a vise, using grooved wood blocks to prevent crushing it. Rotating the nail will form a smooth flare on the end of the pipe. The turning motion should be slow and the pressure relatively heavy to obtain the best results.

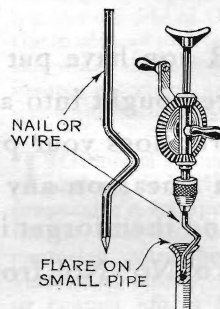


Fig. 3. A bent finishing nail, used in a hand drill, makes useful tool for flaring a pipe end.

Cleaning the Starter

THE bendix type starter will not work perfectly unless it is kept clean and free from oil. It should never be lubricated. In most cars the bendix drive is inclosed in the fly-wheel housing, and while the housing is supposed to be free from oil, some oil may be thrown on the bendix from the clutch mechanism. The usual method of cleaning the bendix is to remove the starter motor. You can, however, drill and tap a hole in the fly-wheel housing at a point where an oil can spout inserted in the hole will squirt cleaning gasoline on the bendix parts, as shown in Fig. 4. Do not use kerosene as the cleaning fluid because enough of it will adhere to the parts to collect dust and cause gumming.

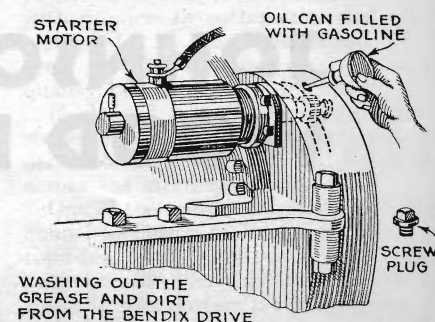


Fig. 4. A simple method of cleaning the bendix drive without removing the starter motor.